

## CLAIMS

### What is claimed is:

1           1.     A method of identifying the presence of cirrhosis of the liver in a  
2 mammal, said method comprising measuring the level of YKL-40 in a biological  
3 sample of the mammal and comparing the level to that of a normal, healthy mammal,  
4 wherein a statistically significant difference indicates the presence of said cirrhosis.

1           2.     The method of claim 1, wherein the amount of YKL-40 in said  
2 sample is measured using an immunoassay.

1           3.     The method of claim 2, wherein the immunoassay is a  
2 competitive immunoassay.

1           4.     The method of claim 3, wherein the immunoassay utilizes a  
2 detectable label selected from the group consisting of radioisotopes, enzymes,  
3 fluorescent molecules, chemiluminescent molecules, bioluminescent molecules, and  
4 colloidal metals to measure YKL-40.

1           5.     The method of claim 1, wherein said mammal is a human.

1           6.     The method of claim 2, wherein the immunoassay uses a  
2 polyclonal antibody to measure YKL-40.

1           7.     The method of claim 2, wherein the immunoassay uses a  
2 monoclonal antibody to measure YKL-40.

1           8.     The method of claim 1, wherein said sample is selected from the  
2 group consisting of blood, plasma, and serum.

1           9.     Antibodies that specifically bind to a YKL-40.

1           10.    The antibodies of claim 9, wherein said antibodies are polyclonal  
2 antibodies produced by immunization of a non-human mammal.

1 11. The antibodies of claim 9, wherein said antibodies are  
2 monoclonal antibodies produced by hybridomas formed from cells taken from a non-  
3 human mammal.

1 12. A kit for use in the detection of a disease state in a mammal  
2 associated with degradation of connective tissue, said kit comprising a YKL-40  
3 antibody.

1 13. The kit of claim 12, wherein said disease state is selected from  
2 the group consisting of an inflammatory or degenerative joint disease, cirrhosis of the  
3 liver, and metastatic cancer.

1 14. The kit of claim 12, wherein said YKL-40 antibody is a polyclonal  
2 antibody.

1 15. The kit of claim 12, wherein said YKL-40 antibody is a  
2 monoclonal antibody.

1 16. The kit of claim 12, further comprising immunoassay reagents.

1 17. The kit of claim 12, further comprising a detectable label.

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